

starboard are essentially the same, may be substituted.

(2) The time and distance to stop the vessel from either full and half speeds, or from full and slow speeds, while maintaining approximately the initial heading with minimum application of the rudder.

(3) For each vessel with a fixed propeller, a table of shaft revolutions per minute for a representative range of speeds.

(4) For each vessel with a controllable pitch propeller, a table of control settings for a representative range of speeds.

(5) For each vessel that is fitted with an auxiliary device to assist in maneuvering, such as a bow thruster, a table of vessel speeds at which the auxiliary device is effective in maneuvering the vessel.

(6) The maneuvering information for the normal load and normal ballast condition for:

(i) Calm weather—wind 10 knots or less, calm sea;

(ii) No current;

(iii) Deep water conditions—water depth twice the vessel's draft or greater; and

(iv) Clean hull.

(7) At the bottom of the fact sheet, the following statement:

WARNING

The response of the (name of the vessel) may be different from that listed above if any of the following conditions, upon which the maneuvering information is based, are varied:

(1) Calm weather—wind 10 knots or less, calm sea;

(2) No current;

(3) Water depth twice the vessel's draft or greater;

(4) Clean hull; and

(5) Intermediate drafts or unusual trim.

(h) An echo depth sounding device.

(i) A device that can continuously record the depth readings of the vessel's echo depth sounding device, except when operating on the Great Lakes and their connecting and tributary waters.

(j) Equipment on the bridge for plotting relative motion.

(k) Simple operating instructions with a block diagram, showing the change-over procedures for remote

steering gear control systems and steering gear power units, permanently displayed on the navigating bridge and in the steering gear compartment.

(l) An indicator readable from the centerline conning position showing the rate of revolution of each propeller, except when operating on the Great Lakes and their connecting and tributary waters.

(m) If fitted with controllable pitch propellers, an indicator readable from the centerline conning position showing the pitch and operational mode of such propellers, except when operating on the Great Lakes and their connecting and tributary waters.

(n) If fitted with lateral thrust propellers, an indicator readable from the centerline conning position showing the direction and amount of thrust of such propellers, except when operating on the Great Lakes and their connecting and tributary waters.

(o) A telephone or other means of communication for relaying headings to the emergency steering station. Also, each vessel of 500 gross tons and over and constructed on or after June 9, 1995 must be provided with arrangements for supplying visual compass-readings to the emergency steering station.

(92 Stat. 1471 (33 U.S.C. 1221 et seq.); 49 CFR 1.46(n)(4))

[CGD 74-77, 42 FR 5956, Jan. 31, 1977, as amended by CGD 77-183, 45 FR 18925, Mar. 24, 1980; CGD 83-004, 49 FR 43466, Oct. 29, 1984; CGD 83-043, 60 FR 24771, May 10, 1995; 60 FR 28834, June 2, 1995]

§ 164.37 Equipment: Vessels of 10,000 gross tons or more.

(a) Each vessel of 10,000 gross tons or more must have, in addition to the radar system under § 164.35(a), a second marine radar system that operates independently of the first.

NOTE: Independent operation means two completely separate systems, from separate branch power supply circuits or distribution panels to antennas, so that failure of any component of one system will not render the other system inoperative.

(b) On each tanker of 10,000 gross tons or more that is subject to Section 5 of the Port and Tanker Safety Act of 1978 (46 U.S.C. 391a), the dual radar system required by this part must have a short

range capability and a long range capability; and each radar must have true north features consisting of a display that is stabilized in azimuth.

(Titles I and II, 86 Stat. 426, 427 (33 U.S.C. 1224; 46 U.S.C. 391(a); 49 CFR 1.46(n)(4))

[CGD 77-016, 43 FR 32112, July 24, 1978, as amended by CGD 79-033, 44 FR 26741, May 7, 1979; CGD 79-033, 47 FR 34389, Aug. 9, 1982]

§ 164.38 Automatic radar plotting aids (ARPA).

(a) The following definitions are used in this section—

Bulk means material in any quantity that is shipped, stored, or handled without benefit of package, label, mark or count and carried in integral or fixed independent tanks.

Constructed means a stage of construction where—

(1) The keel is laid;

(2) Construction identifiable with a specific ship begins; or

(3) Assembly of that ship has commenced comprising at least 50 tons or 1 percent of the estimated mass of all structural material, whichever is less.

Hazardous material means—

(1) A flammable liquid as defined in 46 CFR 30.10-22 or a combustible liquid as defined in 46 CFR 30.10-15;

(2) A material listed in table 151.05 of 46 CFR 151.05, table 1 of 46 CFR 153, or table 4 of 46 CFR Part 154; or

(3) A liquid, liquefied gas, or compressed gas listed in 49 CFR 172.101.

Self-propelled vessel includes those combinations of pushing vessel and vessel being pushed ahead which are rigidly connected in a composite unit and are required by Rule 24(b) of the International Regulations for Preventing Collisions at Sea, 1972 (72 COLREGS) (App. A to 33 CFR Part 81) to exhibit the lights prescribed in Rule 23 for a "Power Driven Vessel Underway".

Tank vessel means a vessel that is constructed or adapted to carry; or carries, oil or hazardous materials in bulk as cargo or cargo residue.

(b) An Automatic Radar Plotting Aid (ARPA) that complies with the standard for such devices adopted by the International Maritime Organization in its "Operational Standards for Automatic Radar Plotting Aids" (Appendix A), except as provided by paragraph (c)

of this section, and that has both audible and visual alarms, must be installed in accordance with the following schedule:

(1) Each self-propelled vessel, except a public vessel, of 10,000 gross tons or more carrying oil or hazardous materials in bulk as cargo or in residue on the navigable waters of the United States, or which transfers oil or hazardous materials in any port or place subject to the jurisdiction of the United States, must be equipped with an ARPA.

(2) Each tank vessel constructed before September 1, 1984, and not required to be ARPA equipped by paragraph (b)(1) of this section, operating on the navigable waters of the United States, must be equipped with an ARPA—

(i) If of 40,000 gross tons or more, by January 1, 1985;

(ii) If of 10,000 gross tons or more but less than 40,000 gross tons, by January 1, 1986.

(3) Each self-propelled vessel, except when operating on the Great Lakes and their connecting and tributary waters, constructed before September 1, 1984, and that is not a tank vessel, and is not carrying oil or hazardous material in bulk as cargo or in residue operating on the navigable waters of the United States, must be equipped with an ARPA—

(i) If of 40,000 gross tons or more, by September 1, 1986;

(ii) If of 20,000 gross tons or more, but less than 40,000 gross tons, by September 1, 1987;

(iii) If of 15,000 gross tons or more, but less than 20,000 gross tons, by September 1, 1988.

(4) Each vessel of 10,000 gross tons or more, except when operating on the Great Lakes and their connecting and tributary waters, constructed on or after September 1, 1984 must be equipped with an ARPA.

(c) Devices installed prior to September 1, 1984, that comply with the U.S. Maritime Administration's "Collision Avoidance System Specification" (Appendix B), and do not comply with the IMO standard, may be retained until January 1, 1991.

(d)(1) Each device required under paragraph (b) of this section must have a permanently affixed label containing: